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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/433,204	11/04/1999	ROBERT ALAN HAMM	12-14-9-7-5	2245

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EXAMINER

COLEMAN, WILLIAM D

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 02/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/433,204	HAMM ET AL.	
	Examiner	Art Unit	
	W. David Coleman	2823	<i>sw</i>

-- Th MAILING DATE of this communication appears on the cover sheet with th correspond nce address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21, 22, 24, 26, 27, 29, 30 and 32 is/are rejected.
- 7) ☒ Claim(s) 23, 25, 28 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed November 17, 2003, with respect to claims 21-30 have been fully considered and are persuasive. The previous prior art rejection of August 4, 2003 has been withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 21, 24, 26, 29 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicants Admitted Prior Art, **FIGS. 1-3**, herein known as AAPA.

4. Claim 21 is taught as an AAPA method of fabricating a semiconductor device having a semiconductor region, the method comprising the steps of:
forming at least two conductive posts **150** overlying the semiconductor region **10-80** to form a structure;
encapsulating **130** the structure and at least one of the at least two conductive posts to form a planarized cured passivation layer (because AAPA teaches a polymer for passivation layer 130, it is well known that polymer passivation layers are cured); and
exposing the at least one of the at least two conductive posts **150** through the planarized cured passivation layer **130** to form the semiconductor device, wherein the step of forming at least two conductive posts comprises a lift-off step(see page 2, lines 26-29).

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5. Pertaining to claim 24, AAPA teaches the method of Claim 21, wherein the step of exposing the at least one of the at least two conductive posts comprises the step of etching the planarized cured passivation layer.

6. Pertaining to claim 26, AAPA teaches a method of fabricating a semiconductor device having a semiconductor region, the method comprising the steps of:
forming at least two conductive posts **150** of about the same height overlying the semiconductor region to form a structure;
encapsulating **130** the structure and at least one of the at least two conductive posts to form a planarized cured passivation layer; and
exposing the at least one of the at least two conductive posts **150** through the planarized cured passivation layer to form the semiconductor device, wherein the step of forming at least two conductive posts comprises a lift-off step.

7. Pertaining to claim 29, AAPA teaches the method of Claim 26, wherein the step of exposing the at least one of the at least two conductive posts comprises the step of etching the planarized cured passivation layer.

8. Pertaining to claim 30, AAPA teaches the method of Claim 29, wherein the step of etching the planarized cured passivation layer comprises a Reactive Ion Etching step.

Pertaining to claim 32, AAPA teaches the method of Claim 21, wherein the step of etching the planarized cured passivation layer comprises a Reactive Ion Etching step (please note that dry etching includes Reactive Ion Etching).

Objection

9. Claims 23, 25, 28 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. David Coleman whose telephone number is 571-272-1856.

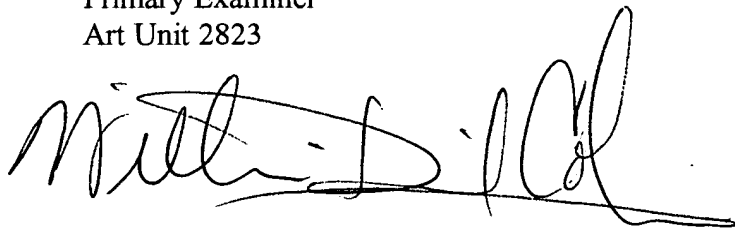
The examiner can normally be reached on 9:00 AM-5:00 PM.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

W. David Coleman
Primary Examiner
Art Unit 2823

WDC

A handwritten signature in black ink, appearing to read 'W. David Coleman', is written over a horizontal line.